District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office to accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company **Burlington Resources Oil & Gas Company**	Contact **Crystal Tafoya**
Address 3401 East 30th St, Farmington, NM	Telephone No.(505) 326-9837
Facility Name: **Wilmuth 1**	Facility Type: **Gas Well**

Surface Owner **Fee**	Mineral Owner **Fee**	API No.**30-045-10370**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	**26**	**31N**	**11W**	**800**	**South**	**1500**	**West**	**San Juan**

Latitude 36.86463 Longitude -107.96391

NATURE OF RELEASE

Type of Release **Produced Fluids**	Volume of Release **Unknown**	Volume Recovered **577 cu. yds**
Source of Release **Historic Impacted Soil**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **February 13, 2014**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

OIL CONS. DIV DIST. 3

JUN 05 2014

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
On 1/27/14 an antifreeze spill of 4.7bbls from the separator was discovered. Soil was in the process of being removed when historic impacted soil was encountered. A spill assessment was conducted by AES on 2/13/14.

Describe Area Affected and Cleanup Action Taken.*
The assessment sample results were above regulatory standards by USEPA method 418.1 for TPH confirming a release. The excavation was 65' x 40' x 6' and 577 cubic yards of soil was transported to a third party landfarm. Excavation and confirmation sampling occurred. Analytical results for TPH, and BTEX were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Release; therefore no further action is required. The final report is attached for review.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Crystal Tafoya	OIL CONSERVATION DIVISION Approved by Environmental Specialist:
Printed Name: **Crystal Tafoya**	
Title: **Field Environmental Specialist**	Approval Date: 6/10/14 Expiration Date:
E-mail Address: crystal.tafoya@conocophillips.com	Conditions of Approval: Attached ☐
Date: 6/3/2014 Phone: (505) 326-9837	

* Attach Additional Sheets If Necessary

#NCS 1411615298

51

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

May 29, 2014

Crystal Tafoya
ConocoPhillips
San Juan Business Unit
Office 214-05
5525 Hwy 64
Farmington, New Mexico 87401

Via electronic mail to:
SJBUE-Team@ConocoPhillips.com

RE: Initial Release Assessment and Final Excavation Report
Wilmuth #1
San Juan County, New Mexico

Dear Ms. Tafoya:

On February 13 and 28, 2014, and March 21, 24, and 25, 2014, Animas Environmental Services, LLC (AES) completed two release assessments and environmental clearance of four final excavation limits at the ConocoPhillips (CoP) Wilmuth #1, located in San Juan County, New Mexico. Historically impacted soils were discovered during a 250-gallon glycol spill clean-up. Based on field sampling and laboratory analytical results, two areas were recommended for excavation during the initial assessments. During well plugging and abandonment activities in March 2014, two additional areas of historically impacted soils were discovered. The initial release assessments were completed by AES on February 13 and 28, 2014, and excavation activities had been completed prior to AES arrival at the location on March 25, 2014.

1.0 Site Information

1.1 Location

Location – SE¼ SW¼, Section 26, T31N, R11W, San Juan County, New Mexico
Well Head Latitude/Longitude – N36.86465 and W107.96449, respectively
Land Jurisdiction – Private
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, February 2014

1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 30 based on the following factors:

- **Depth to Groundwater:** A cathodic protection report form dated January 1995 for the Wilmuth #1 reported the depth to groundwater at 15 feet bgs. Nearby water wells SJ 01545 and SJ 03323 report groundwater at 10 and 8 feet bgs, respectively. (20 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** Approximately 315 feet to the southwest is an irrigation canal from the Animas River. (10 points)

1.3 Assessment

AES was initially contacted by Crystal Tafoya of CoP on February 13, 2014, and on the same day, Deborah Watson and Jesse Sprague of AES conducted release assessment field work associated with a glycol release. The assessment included collection and field sampling of 15 soil samples from 7 soil borings (SB-1 through SB-7). During the initial assessment, historically contaminated soils were discovered. Based on the field sampling, AES recommended returning to the location for further delineation of the historic contamination. The excavation associated with the glycol release was backfilled. Sample locations are presented on Figure 3.

On February 28, 2014, Ross Kennemer and Jesse Sprague of AES completed release assessment field work. The assessment included collection of 20 soil samples from 9 test holes (TH-1 through TH-9). Based on field sampling and laboratory analytical results, AES recommended two areas for excavation. Sample locations are shown on Figure 4.

Area A: On March 21, 2014, AES personnel returned to the location to collect excavation clearance confirmation soil samples. Field work included collection and field sampling of seven confirmation soil samples (SC-1 through SC-7) from the walls and base of the excavation. Based on field sampling and laboratory analytical results, the excavation was extended to the southwest by 2 feet, and the base of the excavation was lowered by 1.5 to 2 feet. An additional sample was collected from the base (SC-13) and the southwest wall (SC-14) on March 24 and 25, 2014, respectively. Irrigation ditches in the area were turned on while excavation activities were in progress, resulting in the accumulation of approximately 2 feet of water within the open excavation. One water

sample (W-1) was collected from the excavation. The final excavation extents for Area A measured approximately 65 feet by 40 feet by 5 to 6 feet in depth.

Area B: On March 21, 2014, AES collected five confirmation soil samples (SC-8 through SC-12) from the walls and base of the excavation within Area B. The final excavation area of Area B measured approximately 32 feet by 15 feet by 4.5 feet in depth.

Two additional areas of impacted soils were discovered during site closure activities, Area C and Area D.

Area C: On March 25, 2014, AES collected one composite confirmation soil sample (SC-15) from the walls and base of the excavation within Area C. The final excavation within Area C measured approximately 16.5 feet by 11.5 feet by 5 feet in depth.

Area D: Also on March 25, 2014, AES collected one composite confirmation soil sample (SC-16) from the walls and base of the excavation within Area D. The final excavation within Area D measured approximately 14.5 feet by 8.5 feet by 5 feet in depth.

Sample locations and final excavation extents for Areas A through D are presented on Figure 4.

2.0 Soil Sampling

A total of 35 soil samples from 16 locations (SB-1 through SB-7 and TH-1 through TH-9) and 16 composite samples (SC-1 through SC-16) were collected during the assessments. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). One of the soil samples collected during the initial assessment (TH-5) and five composite soil samples (SC-2, SC-6, SC-7, SC-11, and SC-16) collected during confirmation sampling were submitted for laboratory analysis. Water sample W-1 was also submitted for laboratory analysis.

2.1 Field Sampling

2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

2.1.2 Total Petroleum Hydrocarbons

Field TPH samples were analyzed per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

2.2 Laboratory Analyses

The soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. Selected soil samples (TH-5, SC-2, SC-6, SC-7, and SC-16) were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B/8260B.

In addition, soil samples SC-6 and SC-11 were laboratory analyzed for:

- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D.

Water sample W-1 was laboratory analyzed for:

- BTEX per USEPA Method 8021B;
- Ethylene and propylene glycol per USEPA Method 8015.

2.3 Field and Laboratory Analytical Results

2.3.1 Release Assessment

On February 13, 2014, initial assessment field screening readings for VOCs via OVM ranged from 0.0 ppm in SB-1 and SB-2 up to 392 ppm in SB-6. Field TPH concentrations ranged from 31.4 mg/kg in SB-2 to greater than 2,400 mg/kg in SB-4.

On February 28, 2014, assessment field screening readings for VOCs via OVM ranged from 0.0 ppm in TH-1 and TH-9 to 3,428 ppm in TH-4. Field TPH concentrations ranged from 28.6 mg/kg in TH-2 to 1,420 mg/kg in TH-9. Results are included in Table 1 and on Figure 3. The AES Field Sampling Reports are attached.

Table 1. Soil Field Sampling VOCs and TPH Results
Wilmuth #1 Release Assessments, February 2014

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	TPH 418.1 (mg/kg)
*NMOCD Action Level**			*100*	*100*
SB-1	2/13/14	4	0.0	39.8
SB-2	2/13/14	1.5	22.8	31.4
		2	0.0	31.4
		3.5	0.0	NA
SB-3	2/13/14	1	0.7	NA
		2	0.2	NA
SB-4	2/13/14	0.5	1.5	NA
		1	20.3	**>2,400**
		2	**116**	**>2,400**
		3	3.7	44.7
		4	0.4	NA
SB-5	2/13/14	2.5	0.1	NA
		4	0.2	NA
SB-6	2/13/14	1	**392**	**1,310**
SB-7	2/13/14	2	6.7	NA
TH-1	2/28/14	1	0.0	57.3
		3.5	0.0	43.0
TH-2	2/28/14	1.5	**303**	**162**
		4.5	61	NA
		6	0.7	28.6
TH-3	2/28/14	3	2.5	NA
		5	0.2	54.0
TH-4	2/28/14	1	**3,428**	NA
		4	11.3	**170**
TH-5	2/28/14	2	5.2	37.7
		4	**670**	45.6
TH-6	2/28/14	2	4.9	41.7

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	TPH 418.1 (mg/kg)
*NMOCD Action Level**			*100*	*100*
TH-7	2/28/14	4	32.6	50.8
		2	1.9	NA
		4	14.8	32.5
TH-8	2/28/14	1.5	1.1	NA
		4	0.7	NA
TH-9	2/28/14	1.5	0.0	NA
		4	81.2	**1,420**
		6	89.1	**176**

NA – not analyzed
*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

Laboratory analyses for TH-5 were used to confirm field sampling results from the assessment on February 28, 2014. Benzene and total BTEX concentrations were reported at less than 0.027 mg/kg and 0.62 mg/kg, respectively. Results are presented in Table 2 and on Figure 4. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results – Benzene, Total BTEX, and TPH
Wilmuth #1 Initial Release Assessment, February 2014

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)
*NMOCD Action Level**			*10*	*50*	*100*	
TH-5	2/28/14	4	<0.027	0.62	NA	NA

NA – not analyzed
*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

2.3.2 Final Clearance of Excavation Areas

In March 2014, final excavation field screening results for VOCs via OVM ranged from 0.0 ppm in SC-8 and SC-13 up to 2,424 ppm in SC-1. Field TPH concentrations ranged from 22.7 mg/kg in SC-5 up to 1,240 mg/kg in SC-1. Results are included in Table 3 and on Figure 5. The AES Field Sampling Reports are attached.

Table 3. Soil Field Sampling VOCs and TPH Results
Wilmuth #1 Final Excavation Clearance, March 2014

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	TPH 418.1 (mg/kg)
*NMOCD Action Level**			*100*	*100*
SC-1 (Area A)	3/21/14	3.5	**2,424**	**1,240**
SC-2 (Area A)	3/21/14	1 to 3.5	**227**	50.0
SC-3 (Area A)	3/21/14	1 to 3.5	21.9	29.2
SC-4 (Area A)	3/21/14	1 to 3.5	4.9	42.0
SC-5 (Area A)	3/21/14	1 to 3.5	3.5	22.7
SC-6 (Area A)	3/21/14	1 to 3.5	**1,134**	**191**
SC-7 (Area A)	3/21/14	1 to 3.5	**417**	98.7
SC-8 (Area B)	3/21/14	4.5	0.0	24.0
SC-9 (Area B)	3/21/14	1 to 4.5	2.6	42.0
SC-10 (Area B)	3/21/14	1 to 4.5	0.7	34.3
SC-11 (Area B)	3/21/14	1 to 4.5	17.4	**146**
SC-12 (Area B)	3/21/14	1 to 4.5	4.3	57.5
SC-13 (Area A)	3/24/14	5 to 6	0.0	25.3
SC-14 (Area A)	3/25/14	1 to 6	1.1	31.2
SC-15 (Area C)	3/25/14	1 to 5	0.9	32.5
SC-16 (Area D)	3/25/14	1 to 5	**1,790**	73.2

Laboratory analytical results for selected samples were used to confirm field screening results during excavation activities. All benzene concentrations were reported below laboratory detection limits. Total BTEX concentrations ranged from below laboratory detection limits in SC-2 and SC-7 up to 0.91 mg/kg in SC-16. TPH concentrations (as GRO/DRO) ranged from 26 mg/kg in SC-11 up to 163 mg/kg in SC-6. Results are presented in Table 4 and on Figure 5.

Table 4. Soil Laboratory Analytical Results – Benzene, Total BTEX, and TPH
Wilmuth #1 Final Excavation Clearance, March 2014

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)
*NMOCD Action Level**			*10*	*50*	*100*	
SC-2 (Area A)	3/21/14	1 to 3.5	<0.073	<0.66	NA	NA
SC-6 (Area A)	3/21/14	1 to 3.5	<0.081	0.39	**83**	**80**
SC-7 (Area A)	3/21/14	1 to 3.5	<0.093	<0.84	NA	NA
SC-11 (Area B)	3/21/14	1 to 4.5	NA	NA	<2.7	26
SC-16 (Area D)	3/25/14	1 to 5	<0.070	0.91	NA	NA

NA – not analyzed
*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

Laboratory analytical results for the water sample (W-1) collected within Area A excavation were used to determine whether or not site had not been impacted by the glycol release. Benzene and toluene concentrations were reported below the laboratory detection limit of 5 µg/L. The ethylbenzene concentration was reported at 28 µg/L, and total xylenes were reported at 330 µg/L. Both ethylene and propylene glycol concentrations were reported below the laboratory detection limit of 25 mg/L. Results are presented in Table 5, and the laboratory analytical report is attached.

Table 5. Water Laboratory Analytical Results – Benzene, Total BTEX, and TPH
Wilmuth #1 Final Excavation, March 2014

Sample ID	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Ethylene Glycol (mg/L)	Propylene Glycol (mg/L)
*WQCC Standard**		*10*	*750*	*750*	*620*	*NE*	*NE*
W-1 (Area A)	3/25/14	<5.0	<5.0	28	330	<25	<25

*New Mexico Water Quality Control Commission (WQCC) standards
NE – not established

3.0 Conclusions and Recommendations

On February 13, 2014, AES conducted an initial assessment of contaminated soils associated with a glycol spill at the Wilmuth #1. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 30.

During the initial assessment, historically contaminated soils were discovered. Initial field screening results above the NMOCD action level of 100 ppm VOCs and 100 mg/kg TPH were reported in SB-4. Further assessment of the historic contamination continued on February 28, 2014. Field sampling results above the NMOCD action level of 100 ppm VOCs and 100 mg/kg TPH were reported in TH-2, TH-4, TH-5, and TH-9. The highest VOC concentration was reported in TH-4 with 3,428 ppm, and the highest TPH concentration was reported in SB-4 with greater than 2,400 mg/kg.

Environmental clearances of the final excavation areas were completed during March 2014. Field screening results of the final excavation extents showed that VOC concentrations in Areas A and D were reported above the NMOCD action level of 100 ppm in three samples (SC-2, SC-7, and SC-16), with the highest concentration reported in SC-16 with 1,790 ppm. Field TPH concentrations were below the applicable NMOCD action level of 100 mg/kg for the final walls and base in Areas A through D, except for the SC-11 (west wall) in Area B with 146 mg/kg. Laboratory analytical results from March 21, 2014, reported benzene and total BTEX concentrations in Area A (SC-2 and SC-7) below applicable NMOCD action levels. For Area B, TPH concentrations as GRO/DRO were reported below the applicable NMOCD action level in SC-11. Laboratory analytical results from March 25, 2014, reported benzene and total BTEX below applicable NMOCD action levels in Area D (SC-16).

Laboratory analytical results for water sample W-1 collected from the Area A excavation reported BTEX constituents below applicable WQCC standards. Both ethylene glycol and propylene glycol concentrations were reported below the laboratory detection limit of 25 mg/L.

Based on final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the Wilmuth #1, benzene, total BTEX, VOC, and TPH concentrations were below applicable NMOCD action levels for each of the sidewalls and base of the four excavations in Area A through Area D. No further work is recommended.

If you have any questions about this report or site conditions, please do not hesitate to contact Deborah Watson at (505) 564-2281.

Sincerely,

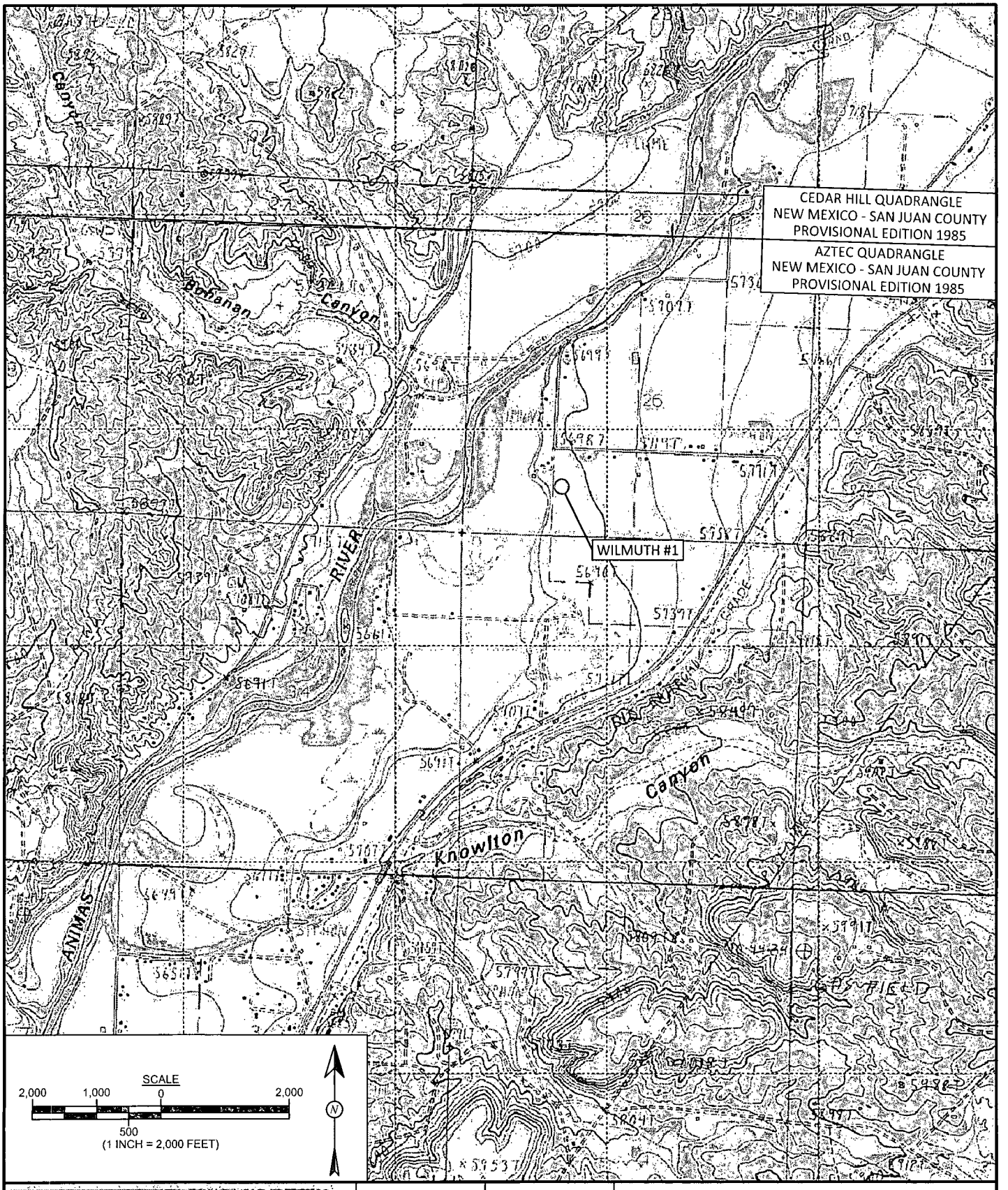
Emilee Skyles
Staff Geologist

Elizabeth McNally, PE

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, February 2014
Figure 3. Release Assessment Sample Locations and Results, February 13, 2014
Figure 4. Release Assessment Sample Locations and Results, February 28, 2014
Figure 5. Final Excavation Sample Locations and Results, March 2014
AES Field Sampling Report 021314
AES Field Sampling Report 022814
AES Field Sampling Report 032114
AES Field Sampling Report 032414
AES Field Sampling Report 032514
Hall Laboratory Analytical Report 1403064
Hall Laboratory Analytical Report 1403943
Hall Laboratory Analytical Report 1403A44
Hall Laboratory Analytical Report 1403A47

C:\Users\emcnally.AES\Dropbox (Animas Environmental)\0000 Animas Server Dropbox EM\2014 Projects\ConocoPhillips\Wilmuth #1\Wilmuth #1 Release and Final Excavation Report 052914 EM.docx

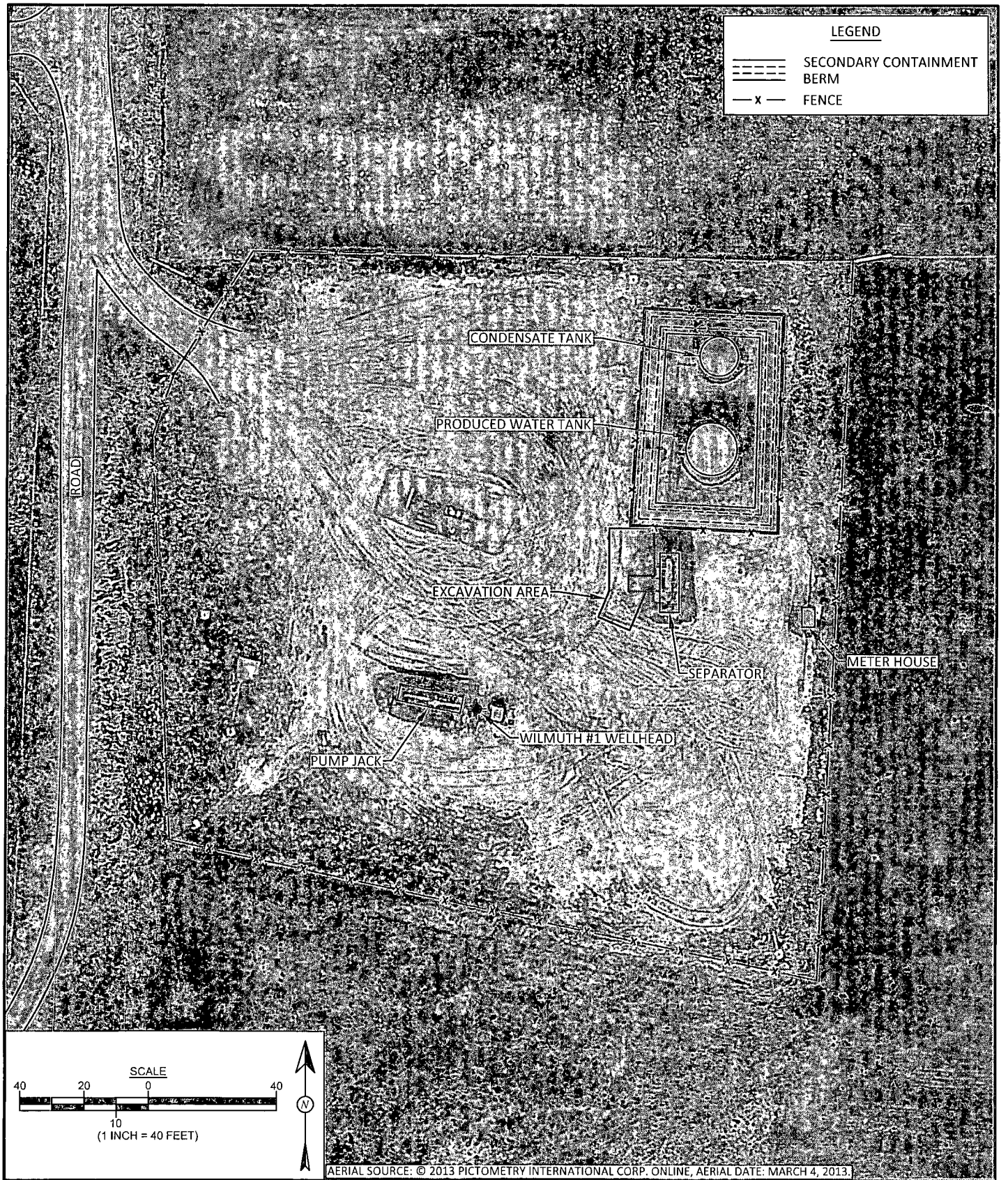


Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** February 14, 2014
REVISIONS BY: C. Lameman	**DATE REVISED:** February 14, 2014
CHECKED BY: D. Watson	**DATE CHECKED:** February 14, 2014
APPROVED BY: E. McNally	**DATE APPROVED:** February 14, 2014

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
ConocoPhillips
WILMUTH #1
SE¼ SW¼, SECTION 26, T31N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.86465, W107.96449



AERIAL SOURCE: © 2013 PICTOMETRY INTERNATIONAL CORP. ONLINE, AERIAL DATE: MARCH 4, 2013.

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** February 14, 2014	**FIGURE 2**
REVISIONS BY: C. Lameman	**DATE REVISED:** February 14, 2014	**AERIAL SITE MAP FEBRUARY 2014** ConocoPhillips WILMUTH #1 SE¼ SW¼, SECTION 26, T31N, R11W SAN JUAN COUNTY, NEW MEXICO N36.86465, W107.96449
CHECKED BY: D. Watson	**DATE CHECKED:** February 14, 2014	
APPROVED BY: E. McNally	**DATE APPROVED:** February 14, 2014	

Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SB-1	2/13/14	4	0.0	39.8
SB-2	2/13/14	1.5	22.8	31.4
		2	0.0	31.4
		3.5	0.0	NA
SB-3	2/13/14	1	0.7	NA
		2	0.2	NA
SB-4	2/13/14	0.5	1.5	NA
		1	20.3	>2,400
		2	116	>2,400
		3	3.7	44.7
		4	0.4	NA
SB-5	2/13/14	2.5	0.1	NA
		4	0.2	NA
SB-6	2/13/14	1	392	1,310
SB-7	2/13/14	2	6.7	NA
NA - NOT ANALYZED				

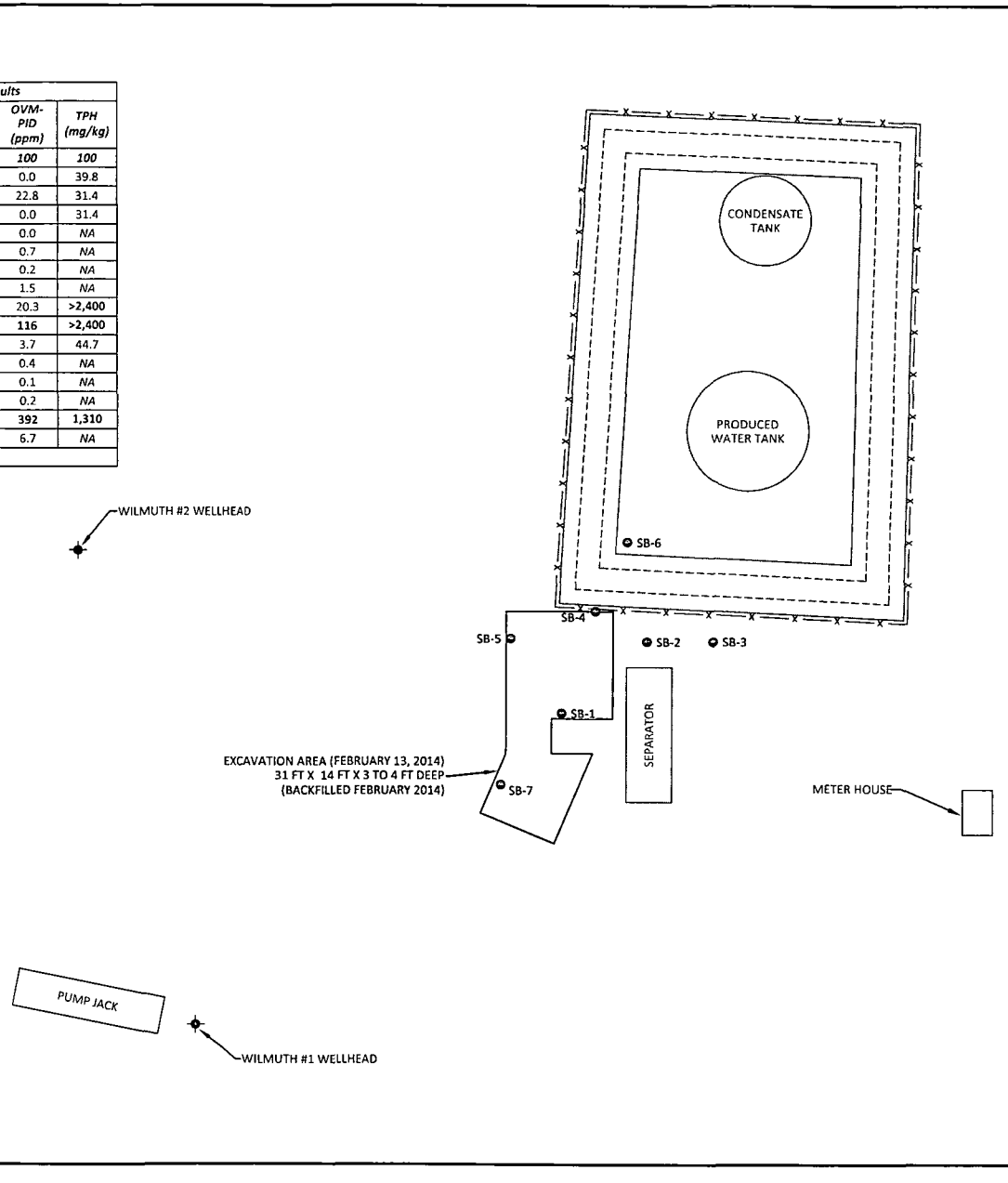


FIGURE 3

RELEASE ASSESSMENT SAMPLE LOCATIONS AND RESULTS
FEBRUARY 13, 2014
ConocoPhillips
WILMUTH #1
SE¼ SW¼, SECTION 26, T31N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.86465, W107.96449

Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	April 10, 2014
REVISIONS BY:	**DATE REVISED:**
C. Lameman	April 10, 2014
CHECKED BY:	**DATE CHECKED:**
D. Watson	April 10, 2014
APPROVED BY:	**DATE APPROVED:**
E. McNally	April 10, 2014

LEGEND

- SOIL BORING SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- —x— FENCE

N

SCALE
20 10 0 20
5
(1 INCH = 20 FEET)

FIGURE 4

RELEASE ASSESSMENT SAMPLE LOCATIONS AND RESULTS
FEBRUARY 28, 2014
ConocoPhillips
WILMUTH #1
SE¼ SW¼, SECTION 26, T31N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.86465, W107.96449

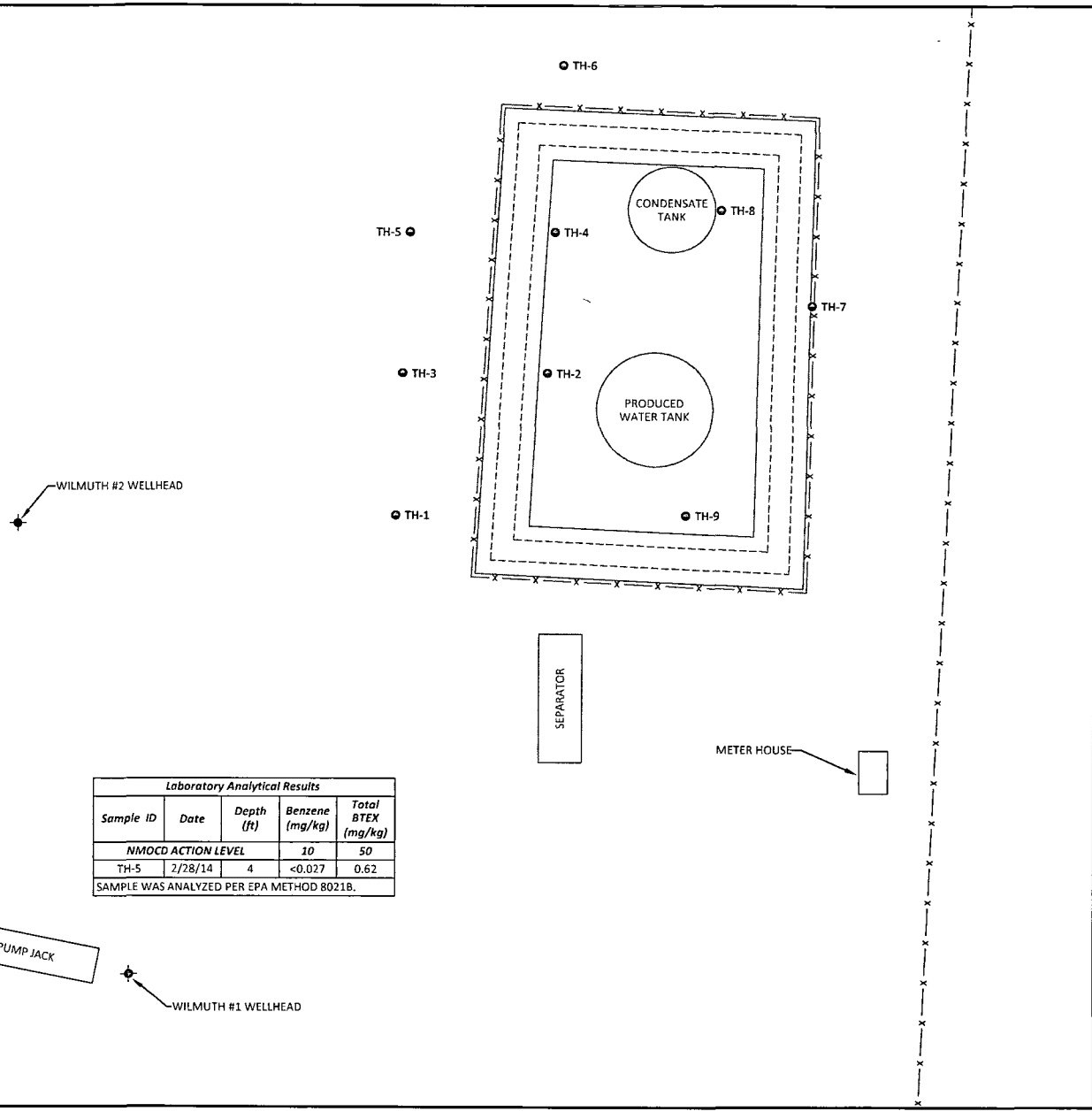
Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	April 10, 2014
REVISIONS BY:	**DATE REVISED:**
C. Lameman	April 10, 2014
CHECKED BY:	**DATE CHECKED:**
D. Watson	April 10, 2014
APPROVED BY:	**DATE APPROVED:**
E. McNally	April 10, 2014

LEGEND

- SOIL BORING SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- FENCE

SCALE
20 10 0 20
5
(1 INCH = 20 FEET)



Field Sampling Results

Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			*100*	*100*
TH-1	2/28/14	1	0.0	57.3
		3.5	0.0	43.0
TH-2	2/28/14	1.5	**303**	**162**
		4.5	61	*NA*
		6	0.7	28.6
TH-3	2/28/14	3	2.5	*NA*
		5	0.2	54.0
TH-4	2/28/14	1	**3,248**	*NA*
		4	11.3	**170**
TH-5	2/28/14	2	5.2	37.7
		4	**670**	45.6
TH-6	2/28/14	2	4.9	41.7
		4	32.6	50.8
TH-7	2/28/14	2	1.9	*NA*
		4	14.8	32.5
TH-8	2/28/14	1.5	1.1	*NA*
		4	0.7	*NA*
TH-9	2/28/14	1.5	0.0	*NA*
		4	81.2	1,420
		6	89.1	**176**

NA - NOT ANALYZED

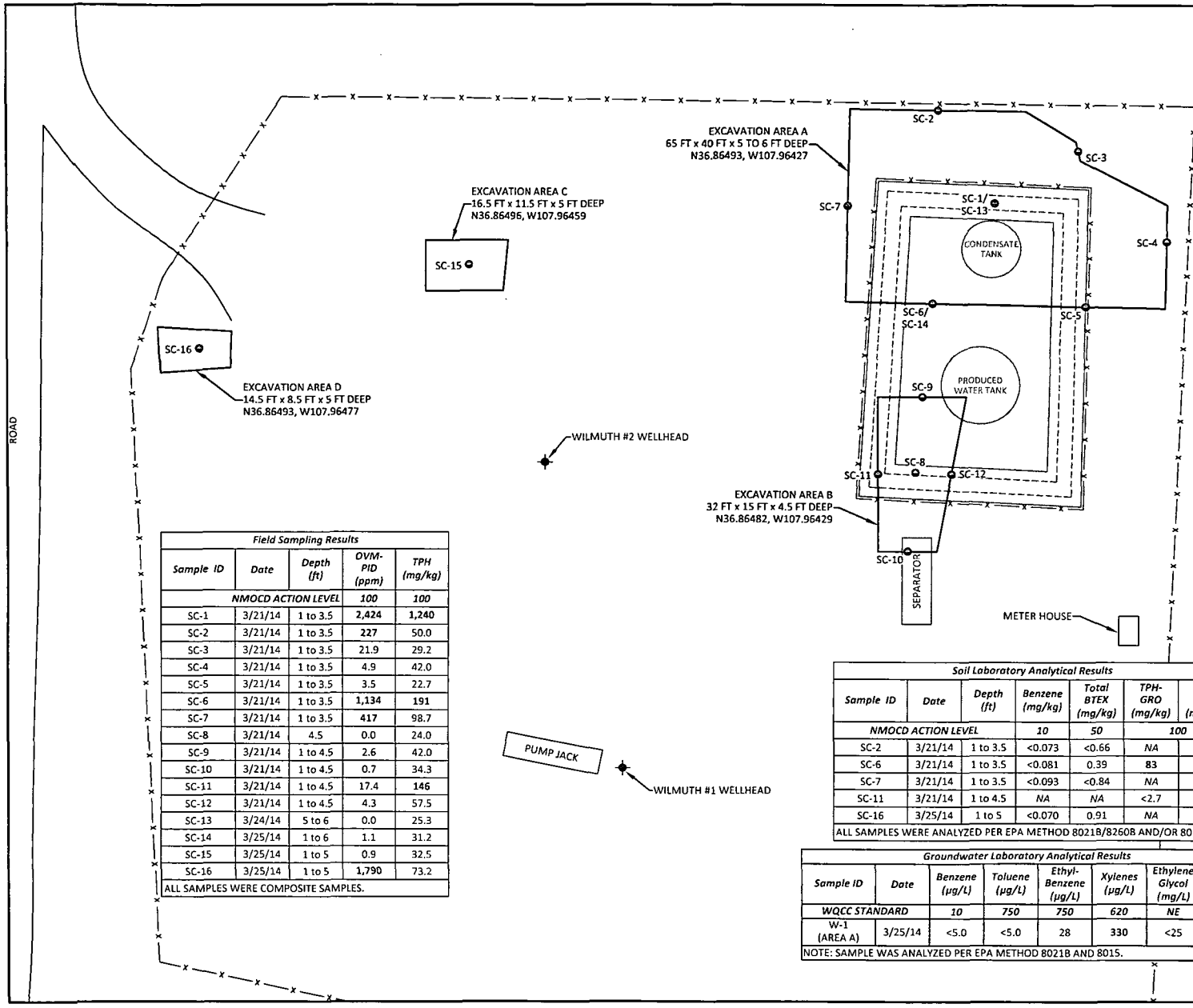
Laboratory Analytical Results

Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)
NMOCD ACTION LEVEL			*10*	*50*
TH-5	2/28/14	4	<0.027	0.62

SAMPLE WAS ANALYZED PER EPA METHOD 8021B.

FIGURE 5

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS
MARCH 2014
ConocoPhillips
WILMUTH #1
SE¼ SW¼, SECTION 26, T31N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.86465, W107.96449



Field Sampling Results

Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SC-1	3/21/14	1 to 3.5	2,424	1,240
SC-2	3/21/14	1 to 3.5	227	50.0
SC-3	3/21/14	1 to 3.5	21.9	29.2
SC-4	3/21/14	1 to 3.5	4.9	42.0
SC-5	3/21/14	1 to 3.5	3.5	22.7
SC-6	3/21/14	1 to 3.5	1,134	191
SC-7	3/21/14	1 to 3.5	417	98.7
SC-8	3/21/14	4.5	0.0	24.0
SC-9	3/21/14	1 to 4.5	2.6	42.0
SC-10	3/21/14	1 to 4.5	0.7	34.3
SC-11	3/21/14	1 to 4.5	17.4	146
SC-12	3/21/14	1 to 4.5	4.3	57.5
SC-13	3/24/14	5 to 6	0.0	25.3
SC-14	3/25/14	1 to 6	1.1	31.2
SC-15	3/25/14	1 to 5	0.9	32.5
SC-16	3/25/14	1 to 5	1,790	73.2
ALL SAMPLES WERE COMPOSITE SAMPLES.				

Soil Laboratory Analytical Results

Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)
NMOCD ACTION LEVEL			10	50	100	
SC-2	3/21/14	1 to 3.5	<0.073	<0.66	NA	NA
SC-6	3/21/14	1 to 3.5	<0.081	0.39	83	80
SC-7	3/21/14	1 to 3.5	<0.093	<0.84	NA	NA
SC-11	3/21/14	1 to 4.5	NA	NA	<2.7	26
SC-16	3/25/14	1 to 5	<0.070	0.91	NA	NA
ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B/8260B AND/OR 8015D.						

Groundwater Laboratory Analytical Results

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	Ethylene Glycol (mg/L)	Propylene Glycol (mg/L)
WQCC STANDARD		10	750	750	620	NE	NE
W-1 (AREA A)	3/25/14	<5.0	<5.0	28	330	<25	<25
NOTE: SAMPLE WAS ANALYZED PER EPA METHOD 8021B AND 8015.							

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: April 10, 2014
REVISIONS BY: C. Lameman	DATE REVISED: April 10, 2014
CHECKED BY: D. Watson	DATE CHECKED: April 10, 2014
APPROVED BY: E. McNally	DATE APPROVED: April 10, 2014

LEGEND

- SOIL BORING SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- FENCE

N

SCALE
20 10 0 20
5
(1 INCH = 20 FEET)

AES Field Sampling Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: Wilmuth #1

Date: 2/13/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	TPH*418.1 (mg/kg)	TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 4'	2/13/2014	10:55	0.0	39.8	12:08	20.0	1	DAW
SB-2 @ 1.5'	2/13/2014	11:00	22.8	31.4	12:14	20.0	1	DAW
SB-2 @ 2'	2/13/2014	11:05	0.0	31.4	12:11	20.0	1	DAW
SB-2 @ 3.5'	2/13/2014	12:30	0.0	*Not Analyzed for TPH*				
SB-3 @ 1'	2/13/2014	11:15	0.7	*Not Analyzed for TPH*				
SB-3 @2'	2/13/2014	11:20	0.2	*Not Analyzed for TPH*				
SB-4 @ 0.5'	2/13/2014	11:25	1.5	*Not Analyzed for TPH*				
SB-4 @ 1'	2/13/2014	11:30	20.3	>2,400	12:50	20.0	1	DAW
SB-4 @ 2'	2/13/2014	11:35	116	>2,400	13:02	20.0	1	DAW
SB-4 @ 3'	2/13/2014	11:40	3.7	44.7	12:58	20.0	1	DAW
SB-4 @ 4'	2/13/2014	11:45	0.4	*Not Analyzed for TPH*				
SB-5 @ 2.5'	2/13/2014	12:10	0.1	*Not Analyzed for TPH*				
SB-5 @ 4'	2/13/2014	12:20	0.2	*Not Analyzed for TPH*				
SB-6 @ 1'	2/13/2014	13:31	392	1,310	13:55	20.0	1	DAW
SB-7@ 2'	9/12/2013	13:40	6.7	*Not Analyzed for TPH*				

DF	Dilution Factor	Total Petroleum Hydrocarbons - USEPA 418.1
NA	Not Analyzed	
ND	Not Detected at the Reporting Limit	
PQL	Practical Quantitation Limit	

Analyst: Debnah Watn

** TPH concentrations recorded may be below PQL.*

Report Finalized: 2/13/14

AES Field Sampling Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: Wilmuth #1

Date: 2/28/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	TPH* 418.1 (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-1 @ 1'	2/28/2014	9:00	0.0	57.3	11:40	20.0	1	JS
TH-1 @ 3.5'	2/28/2014	9:15	0.0	43.0	11:40	20.0	1	JS
TH-2 @ 1.5'	2/28/2014	9:20	303	162	11:40	20.0	1	JS
TH-2 @ 4.5'	2/28/2014	9:25	61.0	*Not Analyzed for TPH*				
TH-2 @ 6'	2/28/2014	9:30	0.7	28.6	11:40	20.0	1	JS
TH-3 @ 3'	2/28/2014	9:35	2.5	*Not Analyzed for TPH*				
TH-3 @ 5'	2/28/2014	9:40	0.2	54.0	11:40	20.0	1	JS
TH-4 @ 1'	2/28/2014	9:45	3,428	*Not Analyzed for TPH*				
TH-4 @ 4'	2/28/2014	9:50	11.3	170	11:40	20.0	1	JS
TH-5 @ 2'	2/28/2014	9:55	5.2	37.7	12:49	20.0	1	JS
TH-5 @ 4'	2/28/2014	10:00	670	45.6	11:40	20.0	1	JS
TH-6 @ 2'	2/28/2014	10:05	4.9	41.7	11:40	20.0	1	JS
TH-6 @ 4'	2/28/2014	10:10	32.6	50.8	11:40	20.0	1	JS
TH-7 @ 2'	2/28/2014	10:15	1.9	*Not Analyzed for TPH*				
TH-7 @ 4'	2/28/2014	10:20	14.8	32.5	11:40	20.0	1	JS
TH-8 @ 1.5'	2/28/2014	10:25	1.1	*Not Analyzed for TPH*				
TH-8 @ 4'	2/28/2014	10:30	0.7	*Not Analyzed for TPH*				
TH-9 @ 1.5'	2/28/2014	10:35	0.0	*Not Analyzed for TPH*				
TH-9 @ 4'	2/28/2014	10:40	81.2	1,420	11:40	20.0	1	JS
TH-9 @ 6'	2/28/2014	10:45	89.1	176	11:40	20.0	1	JS

Report Finalized: 2/28/14

DF	Dilution Factor
NA	Not Analyzed
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit

**Field TPH concentrations recorded may be below PQL.*

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Jesse E Sprague

AES Field Sampling Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: Wilmuth #1

Date: 3/21/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	Excavation	Sample Location	OVM (ppm)	TPH* 418.1 (mg/kg)	TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	3/21/2014	10:15	Area A	Base	2,424	1,237	11:21	20.0	1	SL
SC-2	3/21/2014	10:20	Area A	North Wall (West)	227	50.0	11:25	20.0	1	SL
SC-3	3/21/2014	10:25	Area A	North Wall (East)	21.9	29.2	11:28	20.0	1	SL
SC-4	3/21/2014	10:30	Area A	East Wall	4.9	42.0	11:31	20.0	1	SL
SC-5	3/21/2014	10:32	Area A	South Wall (West)	3.5	22.7	11:34	20.0	1	SL
SC-6	3/21/2014	10:35	Area A	South Wall (East)	1,134	191	11:37	20.0	1	SL
SC-7	3/21/2014	10:40	Area A	West Wall	417	98.7	11:40	20.0	1	SL
SC-8	3/21/2014	12:00	Area B	Base	0.0	24.0	12:42	20.0	1	SL
SC-9	3/21/2014	12:05	Area B	North Wall	2.6	42.0	12:45	20.0	1	SL
SC-10	3/21/2014	12:10	Area B	South Wall	0.7	34.3	12:48	20.0	1	SL
SC-11	3/21/2014	12:15	Area B	West Wall	17.4	146	12:51	20.0	1	SL
SC-12	3/21/2014	12:20	Area B	East Wall	4.3	57.5	12:54	20.0	1	SL

DF Dilution Factor

Report Finalized: 3/21/14

NA Not Analyzed
ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit
**TPH concentrations recorded may be below PQL.*

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Stephanie Glynn

Report Finalized: 3/21/14

AES Field Sampling Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: Wilmuth #1

Date: 3/24/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	Excavation	Sample Location	OVM (ppm)	TPH* 418.1 (mg/kg)	TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-13	3/24/2014	12:50	Area A	Base	0.0	25.3	13:22	20.0	1.0	SL

DF	Dilution Factor
NA	Not Analyzed
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit

**TPH concentrations recorded may be below PQL.*

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Stephanie Alyn

Report Finalized: 3/24/14

AES Field Sampling Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: Wilmuth #1

Date: 3/25/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	Excavation	Sample Location	OVM (ppm)	TPH* 418.1 (mg/kg)	TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-14	3/25/2014	9:55	Area A	South Wall (West)	1.1	31.2	11:32	20.0	1.0	EMS
SC-15	3/25/2014	13:21	Area C	Composite	0.9	32.5	13:56	20.0	1.0	EMS
SC-16	3/25/2014	14:10	Area D	Composite	1,790	73.2	14:25	20.0	1.0	EMS

DF Dilution Factor
NA Not Analyzed
ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit
**TPH concentrations recorded may be below PQL.*

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Emily Sky

Report Finalized: 3/25/14

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 07, 2014

Debbie Watson
Animas Environmental
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-4071
FAX

RE: Wilmuth 1 OrderNo.: 1403064

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/4/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1403064**
Date Reported: **3/7/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: Wilmuth 1
Lab ID: 1403064-001

Client Sample ID: TH-5 @ 4'
Collection Date: 2/28/2014 10:00:00 AM
Matrix: MEOH (SOIL) **Received Date:** 3/4/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	0.027		mg/Kg	1	3/6/2014 11:56:14 PM	R17143
Toluene	ND	0.027		mg/Kg	1	3/6/2014 11:56:14 PM	R17143
Ethylbenzene	0.055	0.027		mg/Kg	1	3/6/2014 11:56:14 PM	R17143
Xylenes, Total	0.56	0.054		mg/Kg	1	3/6/2014 11:56:14 PM	R17143
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	3/6/2014 11:56:14 PM	R17143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403064**

07-Mar-14

Client: Animas Environmental

Project: Wilmuth 1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R17126**	RunNo: **17126**
Prep Date:	Analysis Date: **3/5/2014**	SeqNo: **492519** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.95		1.000		94.6	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R17126**	RunNo: **17126**
Prep Date:	Analysis Date: **3/5/2014**	SeqNo: **492521** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID **MB-12030 MK**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R17143**	RunNo: **17143**
Prep Date:	Analysis Date: **3/6/2014**	SeqNo: **493577** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		96.7	80	120			

Sample ID **LCS-12030 MK**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R17143**	RunNo: **17143**
Prep Date:	Analysis Date: **3/6/2014**	SeqNo: **493578** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.050	1.000	0	117	80	120			
Toluene	1.2	0.050	1.000	0	117	80	120			
Ethylbenzene	1.2	0.050	1.000	0	118	80	120			
Xylenes, Total	3.6	0.10	3.000	0	119	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID **1403064-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **TH-5 @ 4'**	Batch ID: **R17143**	RunNo: **17143**
Prep Date:	Analysis Date: **3/6/2014**	SeqNo: **493589** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.30	0.027	0.5441	0.003879	53.6	67.4	135			S
Toluene	0.28	0.027	0.5441	0.1318	27.8	72.6	135			S
Ethylbenzene	0.34	0.027	0.5441	0.05495	51.5	69.4	143			S
Xylenes, Total	1.4	0.054	1.632	0.6497	46.8	70.8	144			S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403064**

07-Mar-14

Client: Animas Environmental

Project: Wilmuth 1

Sample ID **1403064-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **TH-5 @ 4'**	Batch ID: **R17143**	RunNo: **17143**
Prep Date:	Analysis Date: **3/6/2014**	SeqNo: **493589** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.63		0.5441		116	80	120			

Sample ID **1403064-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **TH-5 @ 4'**	Batch ID: **R17143**	RunNo: **17143**
Prep Date:	Analysis Date: **3/6/2014**	SeqNo: **493590** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.52	0.027	0.5441	0.003879	95.1	67.4	135	55.4	20	R
Toluene	0.51	0.027	0.5441	0.1318	69.6	72.6	135	57.3	20	RS
Ethylbenzene	0.55	0.027	0.5441	0.05495	91.6	69.4	143	49.1	20	R
Xylenes, Total	2.0	0.054	1.632	0.6497	84.5	70.8	144	35.8	20	R
Surr: 4-Bromofluorobenzene	0.65		0.5441		120	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1403064 RcptNo: 1

Received by/date: 03/04/14

Logged By: Lindsay Mangin 3/4/2014 10:00:00 AM

Completed By: Lindsay Mangin 3/4/2014 11:02:40 AM

Reviewed By: 03/04/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.5	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services LLC

Mailing Address: 624 Comanche St Farmington, NM 87401

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Wilmuth 1

Project #:

Project Manager: D. Watson

Sampler:
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.5

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
2/28/14	1000	soil	TH-5 @ 4'	2 mcoh jar 1 4oz	MeOH —	1403064 -001	X										

Analysis Request: BTEX + MTBE + TPH (8021)

Date:	Time:	Relinquished by:	Received by:	Date	Time
3-4-14	630	Jesse E Spencer	Debrah Watson	3-4-14	630
Date:	Time:	Relinquished by:	Received by:	Date	Time
3-4-14	630	Debrah Watson		03/04/14	1000

Remarks: Bill to Conoco Phillips
WO#: 10342534
Area: 4
Activity code:
User: GARRECD
ordered by: Crystal Tafoya
supervisor: Chris Neuschwander

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 25, 2014

Debbie Watson
Animas Environmental
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-4071
FAX

RE: CoP Wilmuth #1 OrderNo.: 1403943

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/22/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1403943**
Date Reported: **3/25/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: CoP Wilmuth #1
Lab ID: 1403943-001 **Matrix:** SOIL

Client Sample ID: SC-2
Collection Date: 3/21/2014 10:20:00 AM
Received Date: 3/22/2014 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.073		mg/Kg	5	3/24/2014 10:50:15 AM	R17515
Toluene	ND	0.15		mg/Kg	5	3/24/2014 10:50:15 AM	R17515
Ethylbenzene	ND	0.15		mg/Kg	5	3/24/2014 10:50:15 AM	R17515
Xylenes, Total	ND	0.29		mg/Kg	5	3/24/2014 10:50:15 AM	R17515
Surr: 4-Bromofluorobenzene	108	80-120		%REC	5	3/24/2014 10:50:15 AM	R17515

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: CoP Wilmuth #1
Lab ID: 1403943-002 **Matrix:** SOIL

Client Sample ID: SC-6
Collection Date: 3/21/2014 10:35:00 AM
Received Date: 3/22/2014 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	80	10		mg/Kg	1	3/24/2014 11:17:10 AM	12321
Surr: DNOP	96.6	66-131		%REC	1	3/24/2014 11:17:10 AM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	83	16		mg/Kg	5	3/24/2014 1:42:22 PM	R17515
Surr: BFB	189	74.5-129	S	%REC	5	3/24/2014 1:42:22 PM	R17515
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.081		mg/Kg	5	3/24/2014 1:42:22 PM	R17515
Toluene	ND	0.16		mg/Kg	5	3/24/2014 1:42:22 PM	R17515
Ethylbenzene	ND	0.16		mg/Kg	5	3/24/2014 1:42:22 PM	R17515
Xylenes, Total	0.39	0.33		mg/Kg	5	3/24/2014 1:42:22 PM	R17515
Surr: 4-Bromofluorobenzene	113	80-120		%REC	5	3/24/2014 1:42:22 PM	R17515

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Client Sample ID: SC-7
Project: CoP Wilmuth #1
Collection Date: 3/21/2014 10:40:00 AM
Lab ID: 1403943-003
Matrix: SOIL
Received Date: 3/22/2014 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.093		mg/Kg	5	3/24/2014 11:47:33 AM	R17515
Toluene	ND	0.19		mg/Kg	5	3/24/2014 11:47:33 AM	R17515
Ethylbenzene	ND	0.19		mg/Kg	5	3/24/2014 11:47:33 AM	R17515
Xylenes, Total	ND	0.37		mg/Kg	5	3/24/2014 11:47:33 AM	R17515
Surr: 4-Bromofluorobenzene	109	80-120		%REC	5	3/24/2014 11:47:33 AM	R17515

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: CoP Wilmuth #1
Lab ID: 1403943-004 **Matrix:** SOIL

Client Sample ID: SC-11
Collection Date: 3/21/2014 12:15:00 PM
Received Date: 3/22/2014 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	26	10		mg/Kg	1	3/24/2014 11:39:00 AM	12321
Surr: DNOP	95.2	66-131		%REC	1	3/24/2014 11:39:00 AM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	2.7		mg/Kg	1	3/24/2014 12:16:10 PM	R17515
Surr: BFB	128	74.5-129		%REC	1	3/24/2014 12:16:10 PM	R17515

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403943**

25-Mar-14

Client: Animas Environmental

Project: CoP Wilmuth #1

Sample ID **MB-12321**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **12321**	RunNo: **17506**
Prep Date: **3/24/2014**	Analysis Date: **3/24/2014**	SeqNo: **504481** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.6		10.00		85.9	66	131			

Sample ID **LCS-12321**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **12321**	RunNo: **17506**
Prep Date: **3/24/2014**	Analysis Date: **3/24/2014**	SeqNo: **504483** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.1	60.8	145			
Surr: DNOP	4.5		5.000		90.6	66	131			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403943**

25-Mar-14

Client: Animas Environmental

Project: CoP Wilmuth #1

Sample ID **MB-12306 MK**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R17515**	RunNo: **17515**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504993** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.2	74.5	129			

Sample ID **LCS-12306 MK**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R17515**	RunNo: **17515**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504994** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	71.7	134			
Surr: BFB	960		1000		95.7	74.5	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403943**

25-Mar-14

Client: Animas Environmental

Project: CoP Wilmuth #1

Sample ID **MB-12306 MK**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R17515**	RunNo: **17515**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505036** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID **LCS-12306 MK**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R17515**	RunNo: **17515**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505038** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.050	1.000	0	116	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1403943 RcptNo: 1

Received by/date: AF 03/22/14

Logged By: Anne Thorne 3/22/2014 11:00:00 AM

Completed By: Anne Thorne 3/24/2014

Reviewed By: SR 3/24/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: Animas Environmental Services

Mailing Address: 624 E. Comanche
Farmington, NM 87401

Phone #: 505-564-2281

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush same day

Project Name:
CoP Wilmuth #1

Project #:

Project Manager:
D. Watson

Sampler: S. Lynn

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.4°C

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1403943	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
3/21/14	1020	Soil	SC-2	MeOH kit 1-4oz	MeOH non	-001	X															
3/21/14	1035	Soil	SC-6	MeOH kit 1-4oz	MeOH non	-002	X		X													
3/21/14	1040	Soil	SC-7	MeOH kit 1-4oz	MeOH non	-003	X															
3/21/14	1215	Soil	SC-11	MeOH kit 1-4oz	MeOH non	-004			X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/21/14	1545	Stephanie Lynn	Mattie Walker	3/21/14	1545
3/21/14	1621	Mattie Walker		3/22/14	11:00

Remarks: Bill to Conoco Phillip

WC: 20075523
Area: 4
Activity code: D150

supervisor: Miko Smith
User: KGARCIA
ordered by: Eric Smith

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 27, 2014

Debbie Watson
Animas Environmental
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-4071
FAX

RE: CoP Wilmuth #1 OrderNo.: 1403A44

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/26/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1403A44**
Date Reported: **3/27/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Client Sample ID: SC-16
Project: CoP Wilmuth #1
Collection Date: 3/25/2014 2:10:00 PM
Lab ID: 1403A44-001
Matrix: MEOH (SOIL)
Received Date: 3/26/2014 9:58:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	ND	0.070		mg/Kg	5	3/26/2014 11:31:17 AM	R17578
Toluene	0.41	0.14		mg/Kg	5	3/26/2014 11:31:17 AM	R17578
Ethylbenzene	ND	0.14		mg/Kg	5	3/26/2014 11:31:17 AM	R17578
Xylenes, Total	0.50	0.28		mg/Kg	5	3/26/2014 11:31:17 AM	R17578
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	5	3/26/2014 11:31:17 AM	R17578
Surr: 4-Bromofluorobenzene	100	70-130		%REC	5	3/26/2014 11:31:17 AM	R17578
Surr: Dibromofluoromethane	104	70-130		%REC	5	3/26/2014 11:31:17 AM	R17578
Surr: Toluene-d8	100	70-130		%REC	5	3/26/2014 11:31:17 AM	R17578

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403A44**

27-Mar-14

Client: Animas Environmental

Project: CoP Wilmuth #1

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **R17578**	RunNo: **17578**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506784** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **R17578**	RunNo: **17578**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506787** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	70	130			
Toluene	0.96	0.050	1.000	0	95.6	60.1	120			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: Toluene-d8	0.50		0.5000		99.3	70	130			

Sample ID **1403a44-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SC-16**	Batch ID: **R17578**	RunNo: **17578**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506790** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	2.9	0.14	2.802	0.01704	103	62.6	140			
Toluene	3.1	0.14	2.802	0.4110	97.0	66.3	136			
Surr: 1,2-Dichloroethane-d4	1.5		1.401		105	70	130			
Surr: 4-Bromofluorobenzene	1.3		1.401		96.3	70	130			
Surr: Dibromofluoromethane	1.5		1.401		106	70	130			
Surr: Toluene-d8	1.3		1.401		91.2	70	130			

Sample ID **1403a44-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SC-16**	Batch ID: **R17578**	RunNo: **17578**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506792** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	2.7	0.14	2.802	0.01704	97.3	62.6	140	5.84	20	
Toluene	3.1	0.14	2.802	0.4110	96.0	66.3	136	0.933	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403A44**

27-Mar-14

Client: Animas Environmental

Project: CoP Wilmuth #1

Sample ID **1403a44-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SC-16**	Batch ID: **R17578**	RunNo: **17578**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506792** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	1.4		1.401		99.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	1.4		1.401		98.5	70	130	0	0	
Surr: Dibromofluoromethane	1.4		1.401		99.0	70	130	0	0	
Surr: Toluene-d8	1.4		1.401		99.3	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Animas Environmental** Work Order Number: **1403A44** RcptNo: **1**

Received by/date: 03/26/14

Logged By: **Ashley Gallegos** **3/26/2014 9:58:00 AM**

Completed By: **Ashley Gallegos** **3/26/2014 10:03:00 AM**

Reviewed By: IO 03/26/2014

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services LLC

Mailing Address: 624 E Comanche Farmington NM 87401

Phone #: 505 564 2281

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn Around Time:
☐ Standard ☒ Rush Same day

Project Name: GP Wilmuth #1

Project #:

Project Manager: D. Watson

Sampler: E. Skyles

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1403A44	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BTEX + MTBE + TPH (8021)	Air Bubbles (Y or N)
3-25-14	1410	Soil	SC-1b	~~Mason Jar~~ 1	~~Mason~~ Cool	-001											X	

Date	Time	Relinquished by:	Received by:	Date	Time
3/25/14	1724				
3/25/14	1751			3/26/14	0958

Remarks: Bill to ConocoPhillips

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
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Website: www.hallenvironmental.com

April 04, 2014

Debbie Watson
Animas Environmental
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-4071
FAX

RE: COP Wilmuth #1 OrderNo.: 1403A47

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/26/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1403A47**
Date Reported: **4/4/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: COP Wilmuth #1
Lab ID: 1403A47-001

Client Sample ID: W-1
Collection Date: 3/25/2014 9:55:00 AM
Matrix: AQUEOUS
Received Date: 3/26/2014 9:58:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	5.0		µg/L	5	3/27/2014 12:03:43 PM	R17637
Toluene	ND	5.0		µg/L	5	3/27/2014 12:03:43 PM	R17637
Ethylbenzene	28	5.0		µg/L	5	3/27/2014 12:03:43 PM	R17637
Xylenes, Total	330	10		µg/L	5	3/27/2014 12:03:43 PM	R17637
Surr: 4-Bromofluorobenzene	105	82.9-139		%REC	5	3/27/2014 12:03:43 PM	R17637

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140327045
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403A47
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140327045-001	**Sampling Date**	3/25/2014	**Date/Time Received**	3/27/2014 1:12 PM
Client Sample ID	1403A47-001B / W-1	**Sampling Time**	9:55 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Ethylene glycol	ND	mg/L	25	4/2/2014	KFG	EPA 8015	
Propylene glycol	ND	mg/L	25	4/2/2014	KFG	EPA 8015	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403A47**

04-Apr-14

Client: Animas Environmental

Project: COP Wilmuth #1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R17603**	RunNo: **17603**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506982** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	18		20.00		91.2	82.9	139			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R17603**	RunNo: **17603**
Prep Date:	Analysis Date: **3/26/2014**	SeqNo: **506983** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	18		20.00		90.9	82.9	139			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R17637**	RunNo: **17637**
Prep Date:	Analysis Date: **3/27/2014**	SeqNo: **507944** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	18		20.00		89.5	82.9	139			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R17637**	RunNo: **17637**
Prep Date:	Analysis Date: **3/27/2014**	SeqNo: **507945** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	80	120			
Toluene	20	1.0	20.00	0	99.6	80	120			
Ethylbenzene	19	1.0	20.00	0	96.9	80	120			
Xylenes, Total	60	2.0	60.00	0	99.9	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		95.7	82.9	139			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1403A47 RcptNo: 1

Received by/date: AG 03/26/14

Logged By: **Lindsay Mangin** 3/26/2014 9:58:00 AM

Completed By: **Lindsay Mangin** 3/26/2014 10:20:02 AM

Reviewed By: MG 03/26/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services, LLC

Mailing Address: 624 E. Comanche
Farmington, NM 87401

Phone #: 505-564-2281

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name:
CoP Wilmuth #1

Project #:

Project Manager:
D. WATSON

Sampler: D. WATSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1403A47	Analysis Request: BTEX + ~~MTBE + TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Glycol				Air Bubbles (Y or N)
3-25-14	0955	Water	W-1	6-40mL VOA	3-HCl 3-non	-001	X											X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/25/14	1724	Deborah Watson	Christine Walker	3/25/14	1724
3/25/14	1751	Christine Walker			

Remarks: Bill to ConocoPhillips

03/26/14 0958

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.